WHAT IS CLAIMED IS:

1. A flame retardant polymer composition which comprises

(a) an organic polymer substrate and

(b) an effective flame retarding amount of a synergistic mixture of

(i) at least one sterically hindered amine stabilizer and

(ii) at least one conventional flame retardant selected from the group consisting of the organohalogen, phosphorus containing, isocyanurate and melamine based flame retardants and

(iii) at least one acid scavenger.

2. A composition according to claim **1** containing no filler or a filler in an amount less than about 3% by weight based on the weight of the polymer component (a).

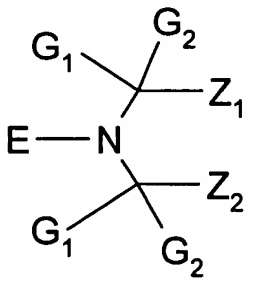
3. A composition according to claim **1** containing no antimony compounds or antimony compounds in an amount less than about 1% by weight based on the weight of component (a).

4. A composition according to claim **1** in which the polymer component (a) is a thermoplastic polymer.

5. A composition according to claim **1** in which the polymer component (a) is selected from the group of resins consisting of the polyolefins, the thermoplastic olefins, styrenic polymers and copolymers, ABS and polymers which contain hetero atoms, double bonds or aromatic rings.

6. A composition according to claim **1** in which the polymer component (a) is selected from polyethylene, polypropylene or copolymers thereof.

7. A composition according to claim **1** in which the stabilizers of component (i) are of the formula



where

G_1 and G_2 are independently alkyl of 1 to 8 carbon atoms or are together pentamethylene,

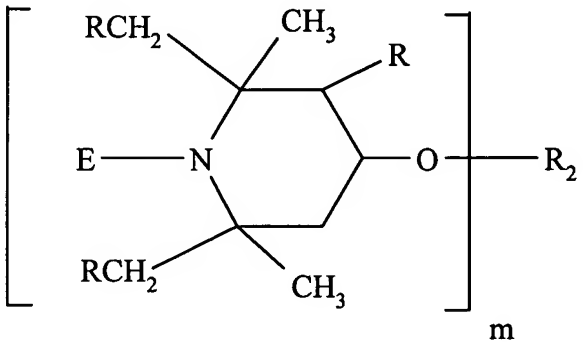
Z_1 and Z_2 are each methyl, or Z_1 and Z_2 together form a linking moiety which may additionally be substituted by an ester, ether, amide, amino, carboxy or urethane group, and

E is oxyl, hydroxyl, alkoxy, cycloalkoxy, aralkoxy, aryloxy, -O-CO-OZ_3, -O-$Si(Z_4)_3$, -O-$PO(OZ_5)_2$ or -O-CH_2-OZ_6 where Z_3, Z_4, Z_5 and Z_6 are selected from the group consisting of hydrogen, an aliphatic, araliphatic and aromatic moiety; or E is -O-T-$(OH)_b$,

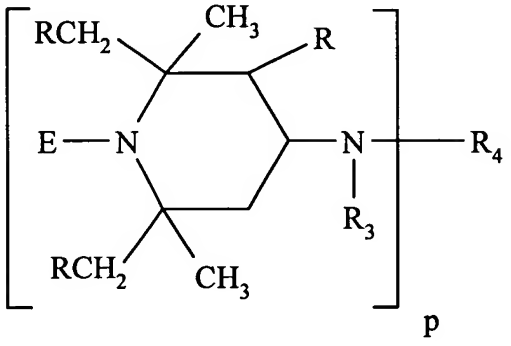
T is a straight or branched chain alkylene of 1 to 18 carbon atoms, cycloalkylene of 5 to 18 carbon atoms, cycloalkenylene of 5 to 18 carbon atoms, a straight or branched chain alkylene of 1 to 4 carbon atoms substituted by phenyl or by phenyl substituted by one or two alkyl groups of 1 to 4 carbon atoms; and

b is 1, 2 or 3 with the proviso that b cannot exceed the number of carbon atoms in T, and when b is 2 or 3, each hydroxyl group is attached to a different carbon atoms of T.

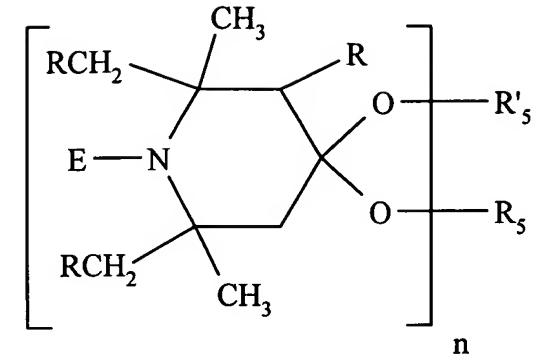
8. A composition according to claim **7** in which the stabilizers of component (i) are of the formula A-R



(A)



(B)



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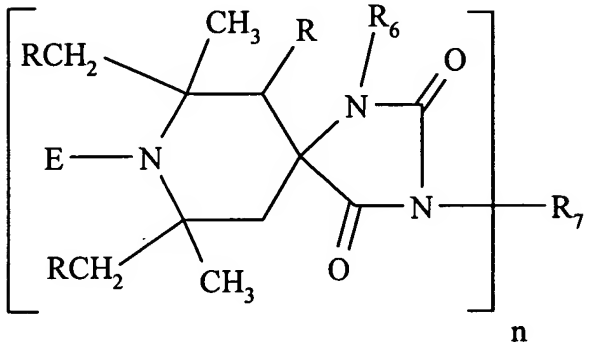

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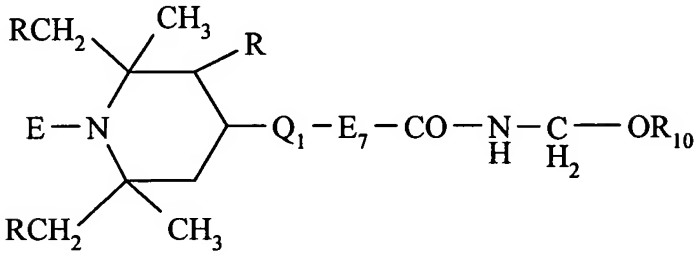
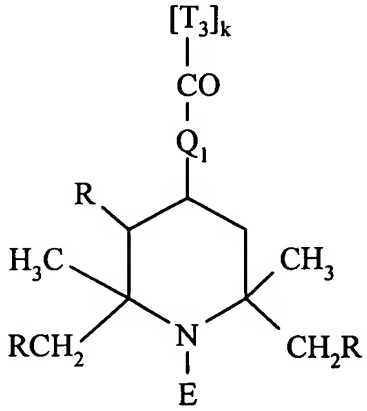


(E)



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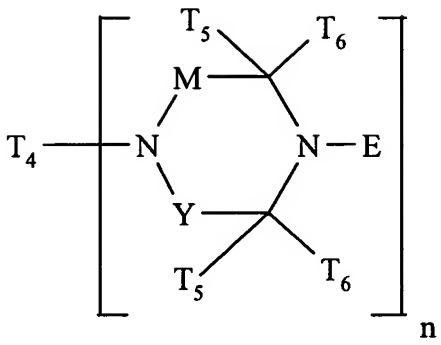

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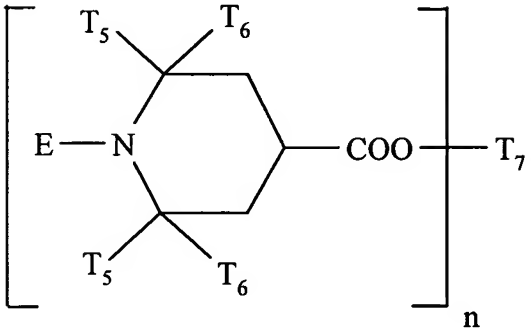

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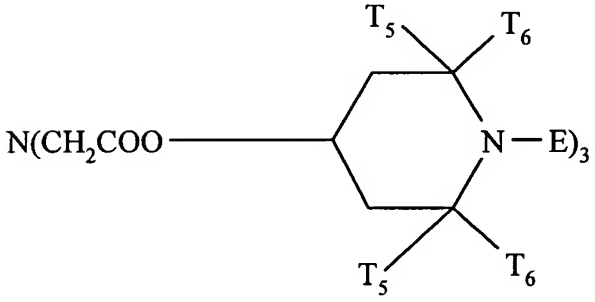
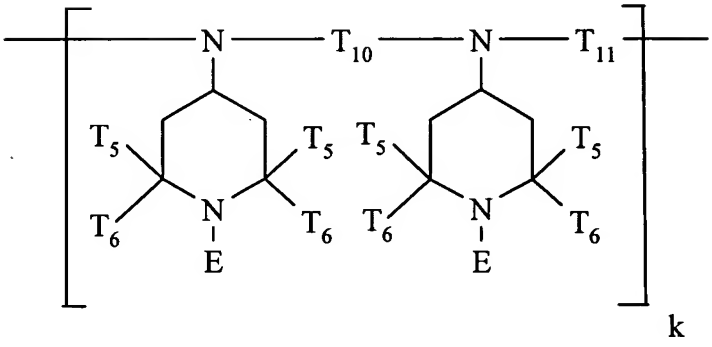


(I)



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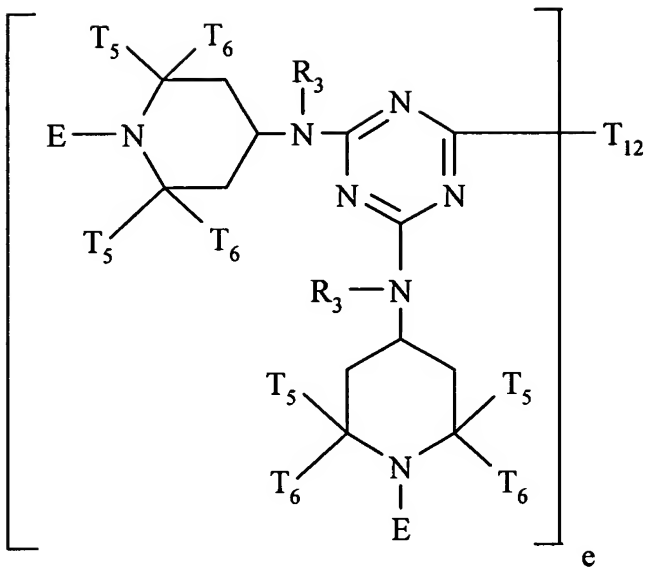

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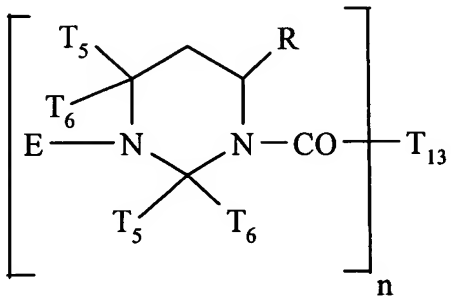

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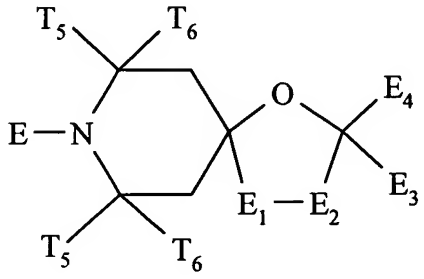

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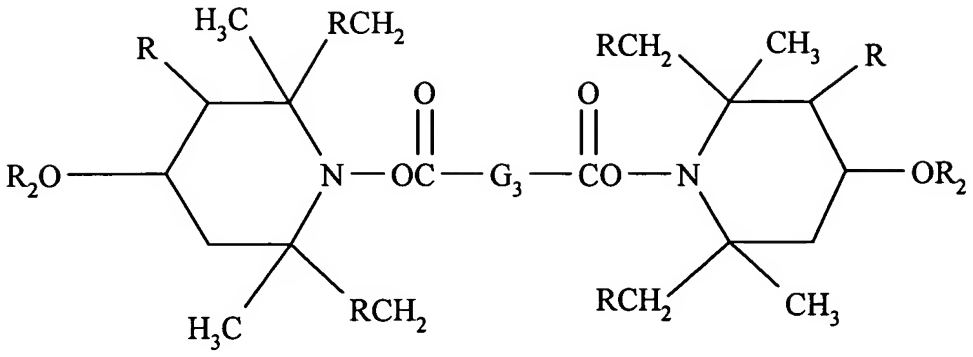

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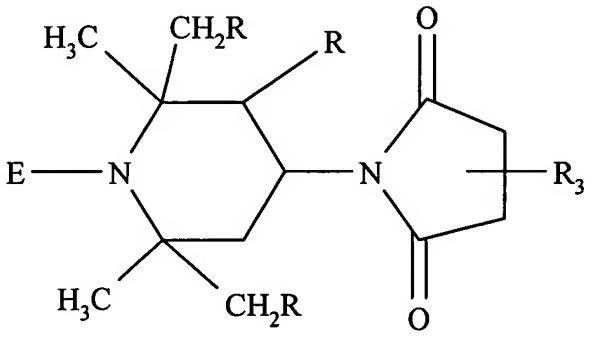

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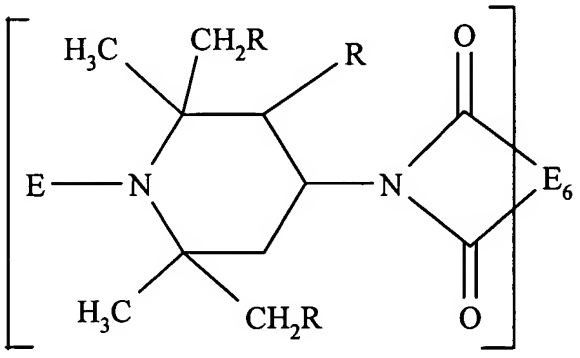

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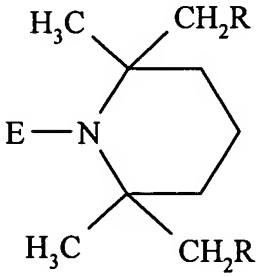

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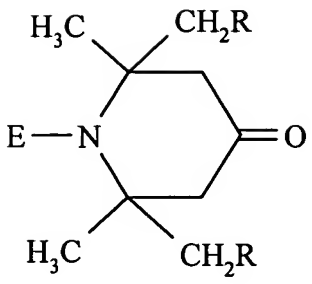


(R)

wherein

E is oxyl, hydroxyl, alkoxy of 1 to 18 carbon atoms, cycloalkoxy of 5 to 12 carbon atoms or aralkoxy of 7 to 15 carbon atoms, or E is -O-T-$(OH)_b$,

T is a straight or branched chain alkylene of 1 to 18 carbon atoms, cycloalkylene of 5 to 18 carbon atoms, cycloalkenylene of 5 to 18 carbon atoms, a straight or branched chain alkylene of 1 to 4 carbon atoms substituted by phenyl or by phenyl substituted by one or two alkyl groups of 1 to 4 carbon atoms;

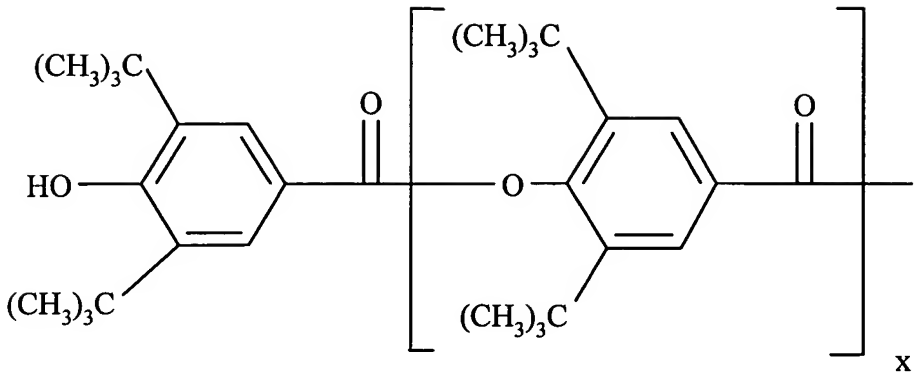
b is 1, 2 or 3 with the proviso that b cannot exceed the number of carbon atoms in T, and when b is 2 or 3, each hydroxyl group is attached to a different carbon atoms of T;

R is hydrogen or methyl,

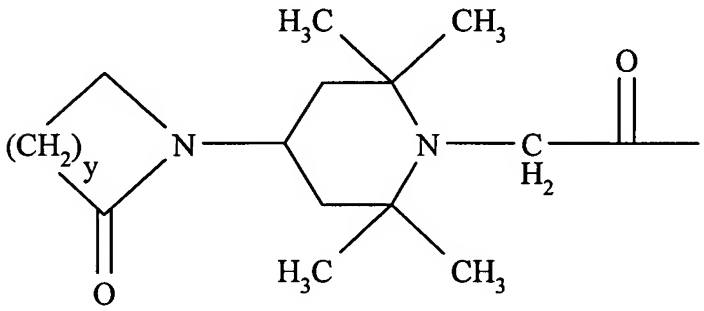
m is 1 to 4,

when m is 1,

R_2 is hydrogen, C_1-C_{18}alkyl or said alkyl optionally interrupted by one or more oxygen atoms, C_2-C_{12}alkenyl, C_6-C_{10}aryl, C_7-C_{18}aralkyl, glycidyl, a monovalent acyl radical of an aliphatic,cycloaliphatic or aromatic carboxylic acid, or a carbamic acid, of a cycloaliphatic carboxylic acid having 5-12 C atoms or of an aromatic carboxylic acid having 7-15 C atoms, or



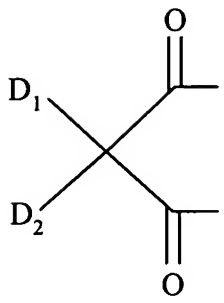
wherein x is 0 or 1,



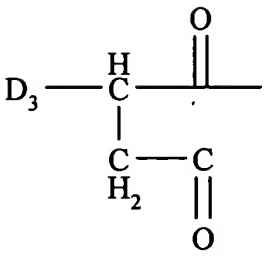
wherein y is 2-4;

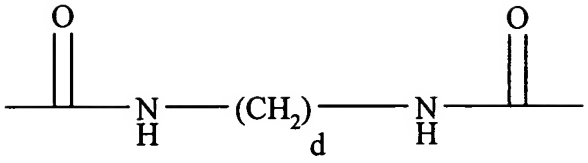
when m is 2,

R_2 is C_1-C_{12}alkylene, C_4-C_{12}alkenylene, xylylene, a divalent acyl radical of an aliphatic, cycloaliphatic, araliphatic or aromatic dicarboxylic acid or of a dicarbamic acid, of a cycloaliphatic or aromatic dicarboxylic acid having 8-14 C atoms, or of an aliphatic, cycloaliphatic or aromatic dicarbamic acid having 8-14 C atoms;



or





wherein D_1 and D_2 are independently hydrogen, an alkyl radical containing up to 8 carbon atoms, an aryl or aralkyl radical including 3,5-di-t-butyl-4-hydroxybenzyl radical, D_3 is hydrogen, or an alkyl or alkenyl radical containing up to 18 carbon atoms, and d is 0-20;

when m is 3, R_2 is a trivalent acyl radical of an aliphatic, unsaturated aliphatic, cycloaliphatic, or aromatic tricarboxylic acid;

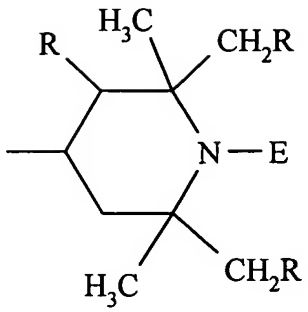
when m is 4, R_2 is a tetravalent acyl radical of a saturated or unsaturated aliphatic or aromatic tetracarboxylic acid including 1,2,3,4-butanetetracarboxylic acid, 1,2,3,4-but-2-ene-tetracarboxylic , and 1,2,3,5- and 1,2,4,5-pentanetetracarboxylic acid;

p is 1, 2 or 3,

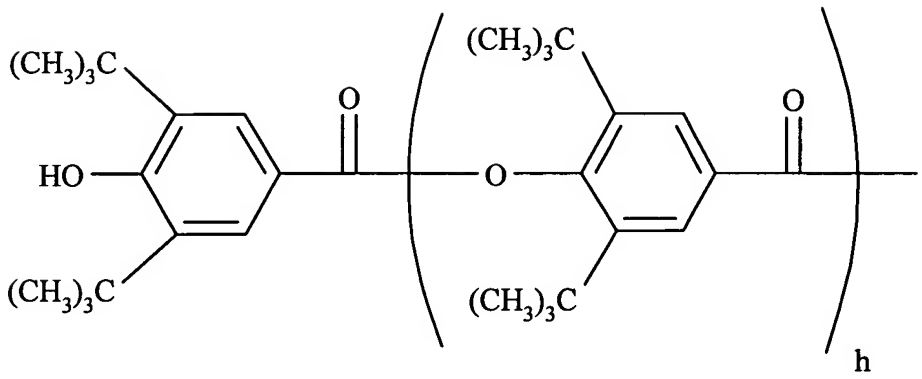
R_3 is hydrogen, C_1-C_{12}alkyl, C_5-C_7cycloalkyl, C_7-C_9aralkyl, C_2-C_{18}alkanoyl, C_3-C_5alkenoyl or benzoyl;

when p is 1,

R_4 is hydrogen, C_1-C_{18}alkyl, C_5-C_7cycloalkyl, C_2-C_8alkenyl, unsubstituted or substituted by a cyano, carbonyl or carbamide group, aryl, aralkyl, or it is glycidyl, a group of the formula -CH_2-CH(OH)-Z or of the formula -CO-Z or -CONH-Z wherein Z is hydrogen, methyl or phenyl; or a group of the formulae



or



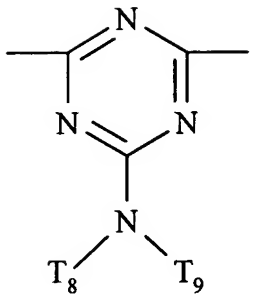
where h is 0 or 1,

R_3 and R_4 together, when p is 1, can be alkylene of 4 to 6 carbon atoms or 2-oxo-polyalkylene the cyclic acyl radical of an aliphatic or aromatic 1,2- or 1,3-dicarboxylic acid,

when p is 2,

R_4 is a direct bond or is C_1-C_{12}alkylene, C_6-C_{12}arylene, xylylene, a $-CH_2CH(OH)-CH_2$ group or a group $-CH_2-CH(OH)-CH_2-O-X-O-CH_2-CH(OH)-CH_2-$ wherein X is C_2-C_{10}alkylene, C_6-C_{15}arylene or C_6-C_{12}cycloalkylene; or, provided that R_3 is not alkanoyl, alkenoyl or benzoyl, R_4 can also be a divalent acyl radical of an aliphatic, cycloaliphatic or aromatic dicarboxylic acid or dicarbamic acid, or can be the group -CO-; or

R_4 is



where T_8 and T_9 are independently hydrogen, alkyl of 1 to 18 carbon atoms, or T_8 and T_9 together are alkylene of 4 to 6 carbon atoms or 3-oxapentamethylene;

when p is 3,

R_4 is 2,4,6-triazinyl,

n is 1 or 2,

when n is 1,

R_5 and R'_5 are independently C_1-C_{12} alkyl, C_2-C_{12} alkenyl, C_7-C_{12} aralkyl, or R_5 is also hydrogen, or R_5 and R'_5 together are C_2-C_8alkylene or hydroxyalkylene or C_4-C_{22}acyloxyalkylene;

when n is 2,

R_5 and R'_5 together are $(\text{-}CH_2)_2C(CH_2\text{-})_2$;

R_6 is hydrogen, C_1-C_{12}alkyl, allyl, benzyl, glycidyl or C_2-C_6alkoxyalkyl;

when n is 1,

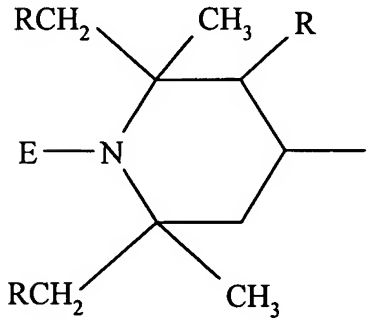
R_7 is hydrogen, C_1-C_{12}alkyl, C_3-C_5alkenyl, C_7-C_9aralkyl, C_5-C_7cycloalkyl, C_2-C_4hydroxyalkyl, C_2-C_6alkoxyalkyl, C_6-C_{10} aryl, glycidyl, a group of the formula $\text{-}(CH_2)_t\text{-}COO\text{-}Q$ or of the formula $\text{-}(CH_2)_t\text{-}O\text{-}CO\text{-}Q$ wherein t is 1 or 2, and Q is C_1-C_4alkyl or phenyl; or

when n is 2,

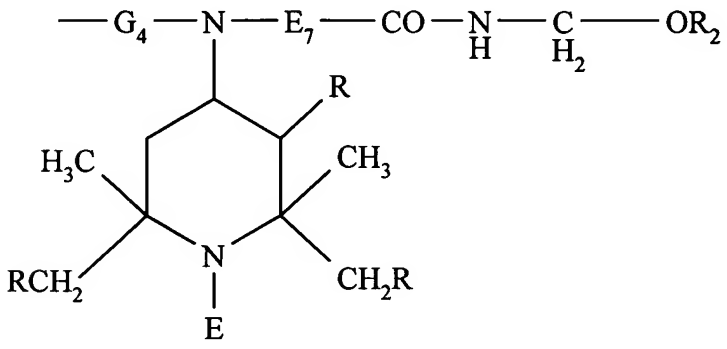
R_7 is C_2-C_{12}alkylene, C_6-C_{12}arylene, a group $-CH_2CH(OH)-CH_2-O-X-O-CH_2-CH(OH)-CH_2-$ wherein X is C_2-C_{10}alkylene, C_6-C_{15}arylene or C_6-C_{12}cycloalkylene, or a group $-CH_2CH(OZ')CH_2-(OCH_2-CH(OZ')CH_2)_2-$ wherein Z' is hydrogen, C_1-C_{18}alkyl, allyl, benzyl, C_2-C_{12}alkanoyl or benzoyl;

Q_1 is $-N(R_8)-$ or -O-; E_7 is C_1-C_3 alkylene, the group $-CH_2-CH(R_9)-O-$ wherein R_9 is hydrogen, methyl or phenyl, the group $-(CH_2)_3-NH-$ or a direct bond;

R_{10} is hydrogen or C_1-C_{18} alkyl, R_8 is hydrogen, C_1-C_{18}alkyl, C_5-C_7cycloalkyl, C_7-C_{12}aralkyl, cyanoethyl, C_6-C_{10}aryl, the group $-CH_2-CH(R_9)-OH$ wherein R_9 has the meaning defined above; a group of the formula



or a group of the formula



wherein G_4 is C_2-C_6alkylene or C_6-C_{12}arylene; or R_8 is a group $-E_7-CO-NH-CH_2-OR_{10}$;

Formula F denotes a recurring structural unit of a polymer where T_3 is ethylene or 1,2-propylene, is the repeating structural unit derived from an alpha-olefin copolymer with an alkyl acrylate or methacrylate; and where k is 2 to 100;

T_4 has the same meaning as R_4 when p is 1 or 2,

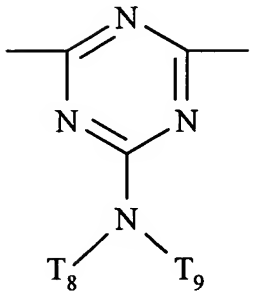
T_5 is methyl,

T_6 is methyl or ethyl, or T_5 and T_6 together are tetramethylene or pentamethylene,

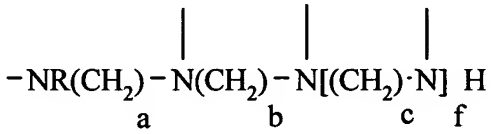
M and Y are independently methylene or carbonyl, and T_4 is ethylene where n is 2;

T_7 is the same as R_7,

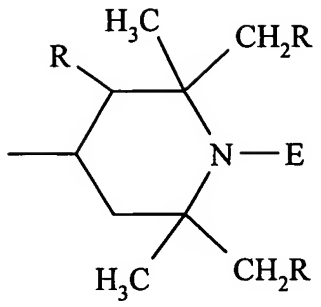
T_{10} and T_{11} are independently alkylene of 2 to 12 carbon atoms, or T_{11} is



T_{12} is piperazinyl,

$-NR_{11}-(CH_2)_d-NR_{11}-$ or 

where R_{11} is the same as R_3 or is also



a, b and c are independently 2 or 3, and f is 0 or 1; and

e is 2, 3 or 4;

T_{13} is the same as R_2 with the proviso that T_{13} cannot be hydrogen when n is 1;

E_1 and E_2, being different, each are -CO- or -N(E_5)- where E_5 is hydrogen, C_1-C_{12} alkyl or C_4-C_{22} alkoxycarbonylalkyl,

E_3 is hydrogen, alkyl of 1 to 30 carbon atoms, phenyl, naphthyl, said phenyl or said naphthyl substituted by chlorine or by alkyl of 1 to 4 carbon atoms, or phenylalkyl of 7 to 12 carbon atoms, or said phenylalkyl substituted by alkyl of 1 to 4 carbon atoms,

E_4 is hydrogen, alkyl of 1 to 30 carbon atoms, phenyl, naphthyl or phenylalkyl of 7 to 12 carbon atoms, or

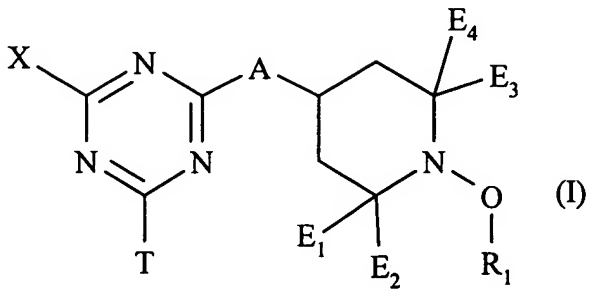
E_3 and E_4 together are polymethylene of 4 to 17 carbon atoms, or said polymethylene substituted by up to four alkyl groups of 1 to 4 carbon atoms,

E_6 is an aliphatic or aromatic tetravalent radical,

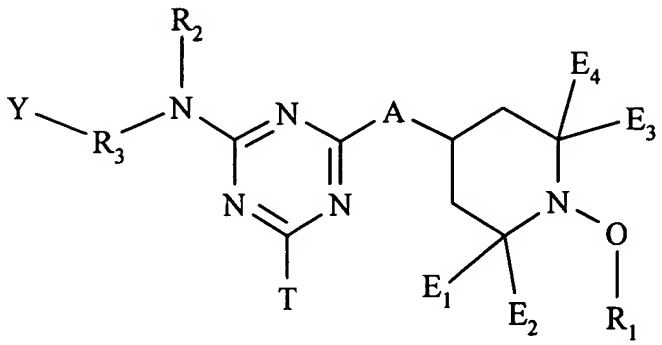
R_2 of formula (N) is a previously defined when m is 1;

G_1 a direct bond, C_1-C_{12} alkylene, phenylene or -NH-G'-NH wherein G' is C_1-C_{12} alkylene; or

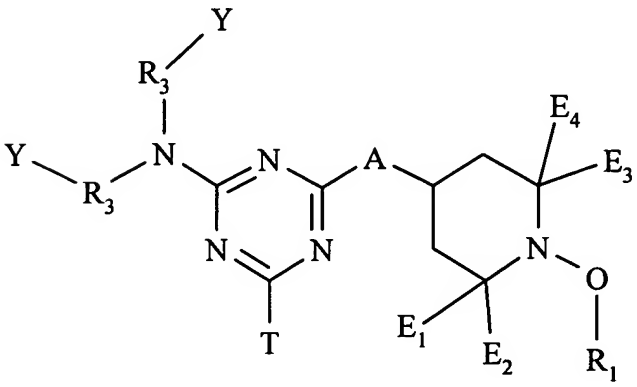
wherein the hindered amine compound is a compound of the formula I, II, III, IV, V, VI, VII, VIII, IX, X or XI



(I)



(II)



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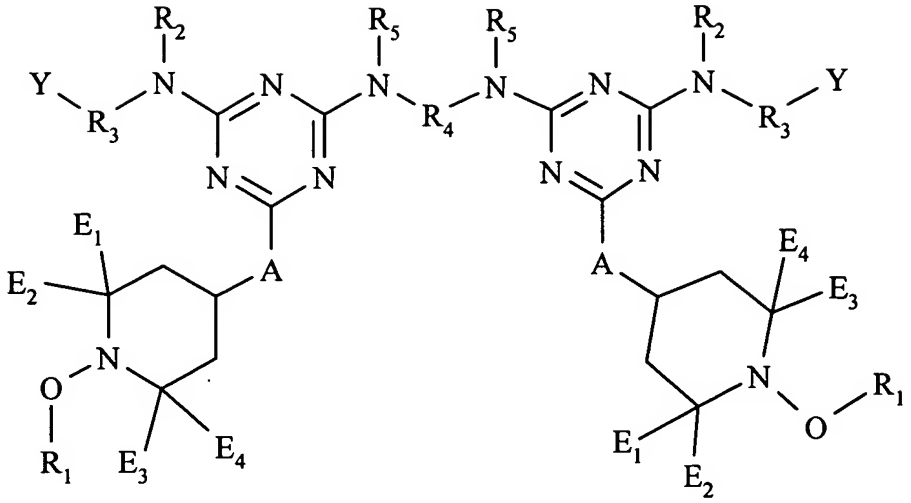

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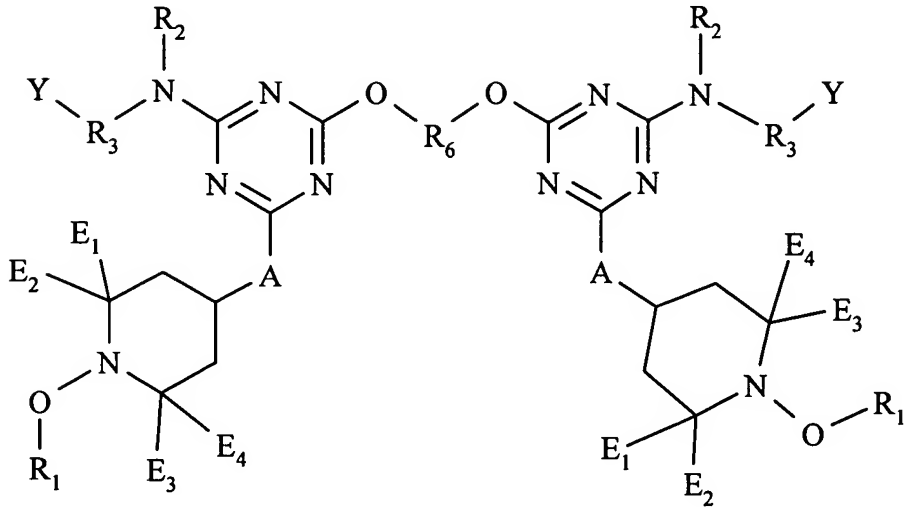

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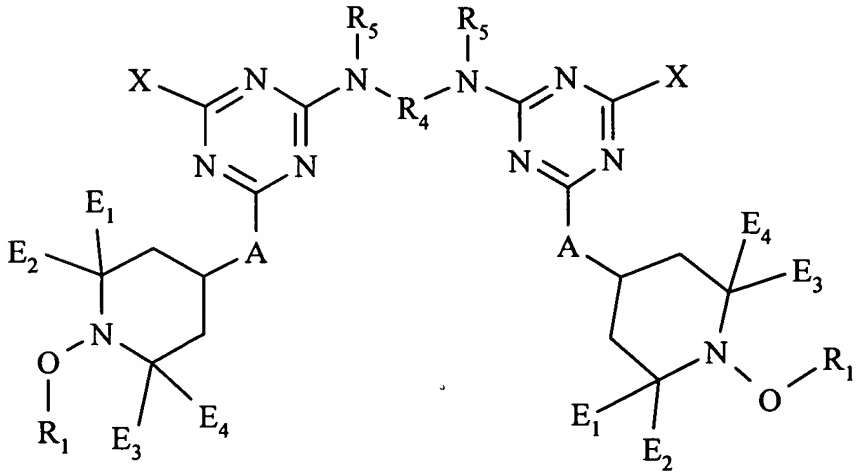

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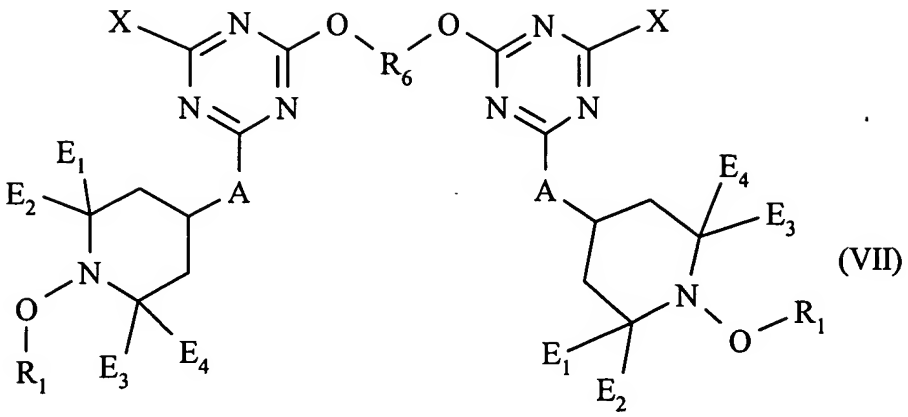
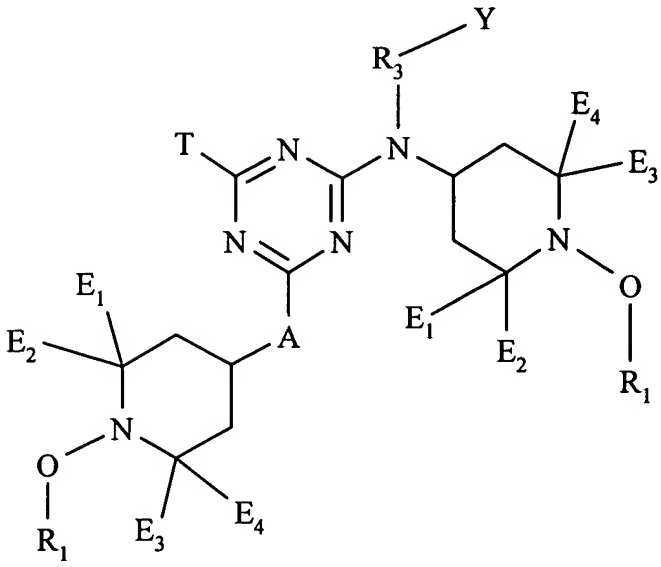
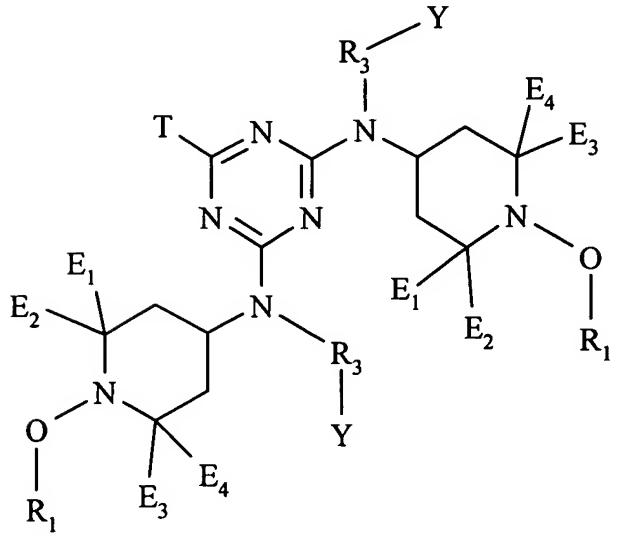


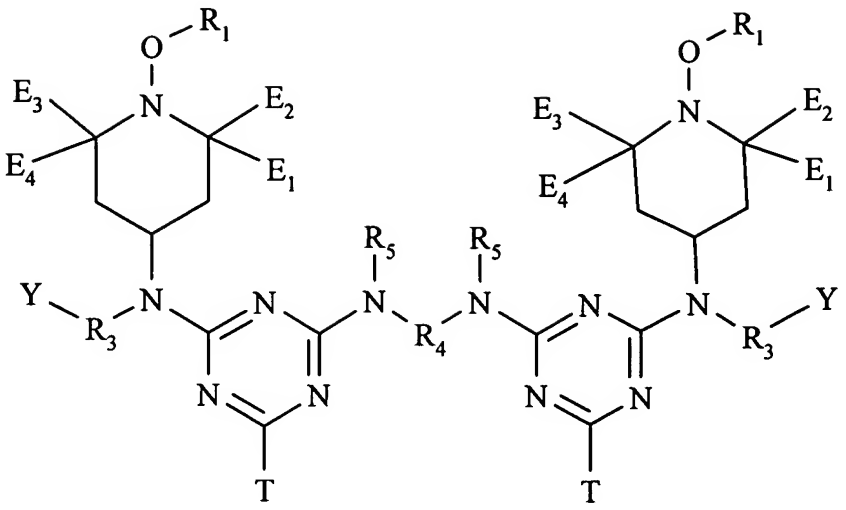
(VII)



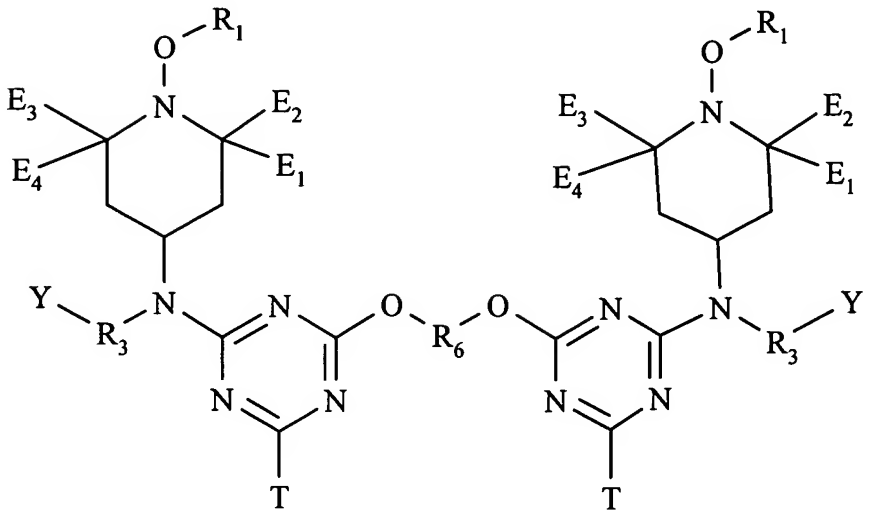
(VIII)



(IX)



(X)



(XI)

wherein

E_1, E_2, E_3 and E_4 are independently alkyl of 1 to 4 carbon atoms, or E_1 and E_2 are independently alkyl of 1 to 4 carbon atoms and E_3 and E_4 taken together are pentamethylene, or E_1 and E_2; and E_3 and E_4 each taken together are pentamethylene,

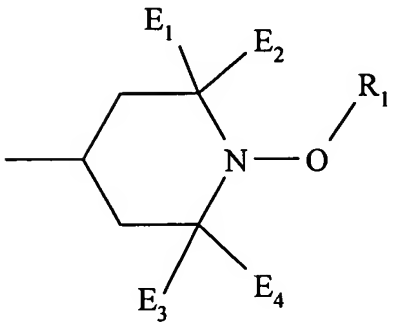
R_1 is alkyl of 1 to 18 carbon atoms, cycloalkyl of 5 to 12 carbon atoms, a bicyclic or tricyclic hydrocarbon radical of 7 to 12 carbon atoms, phenylalkyl of 7 to 15 carbon atoms, aryl of 6 to 10 carbon atoms or said aryl substituted by one to three alkyl of 1 to 8 carbon atoms,

R_2 is hydrogen or a linear or branched chain alkyl of 1 to 12 carbon atoms,

R_3 is alkylene of 1 to 8 carbon atoms, or R_3 is -CO-, -CO-R_4-, -CONR$_2$-, or -CO-NR$_2$-R_4-,

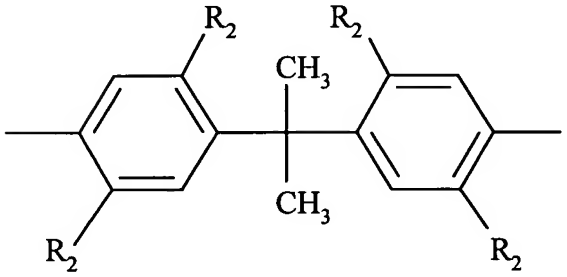
R_4 is alkylene of 1 to 8 carbon atoms,

R_5 is hydrogen, a linear or branched chain alkyl of 1 to 12 carbon atoms, or



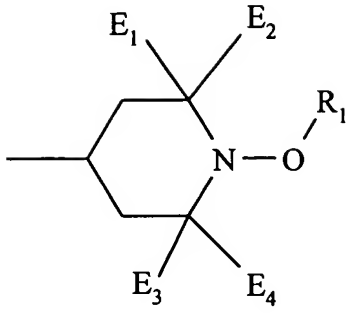
or when R_4 is ethylene, two R_5 methyl substituents can be linked by a direct bond so that the triazine bridging group -N(R_5)-R_4-N(R_5)- is a piperazin-1,4-diyl moiety,

R_6 is alkylene of 2 to 8 carbon atoms or R_6 is

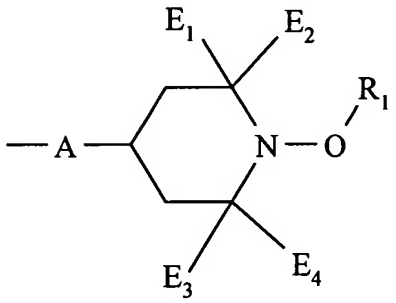


with the proviso that Y is not -OH when R_6 is the structure depicted above,

A is -O- or -NR$_7$- where R_7 is hydrogen, a straight or branched chain alkyl of 1 to 12 carbon atoms, or R_7 is



T is phenoxy, phenoxy substituted by one or two alkyl groups of 1 to 4 carbon atoms, alkoxy of 1 to 8 carbon atoms or $-N(R_2)_2$ with the stipulation that R_2 is not hydrogen, or T is



X is $-NH_2$, -NCO, -OH, -O-glycidyl, or $-NHNH_2$, and

Y is -OH, $-NH_2$, $-NHR_2$ where R_2 is not hydrogen; or Y is -NCO, -COOH, oxiranyl, -O-glycidyl, or $-Si(OR_2)_3$; or the combination R_3-Y- is $-CH_2CH(OH)R_2$ where R_2 is alkyl or said alkyl interrupted by one to four oxygen atoms, or R_3-Y- is $-CH_2OR_2$;

or

wherein the hindered amine compound is a mixture of N,N',N'''-tris{2,4-bis[(1-hydrocarbyloxy-2,2,6,6-tetramethylpiperidin-4-yl)alkylamino]-s-triazin-6-yl}-3,3'-ethylenediiminodipropylamine; N,N',N''-tris{2,4-bis[(1-hydrocarbyloxy-2,2,6,6-tetramethylpiperidin-4-yl)alkylamino]-s-triazin-6-yl}-3,3'-ethylenediiminodipropylamine, and bridged derivatives as described by formulas I, II, IIA and III

$R_1NH\text{-}CH_2CH_2CH_2NR_2CH_2CH_2NR_3CH_2CH_2CH_2NHR_4$ (I)

$T\text{-}E_1\text{-}T_1$ (II)

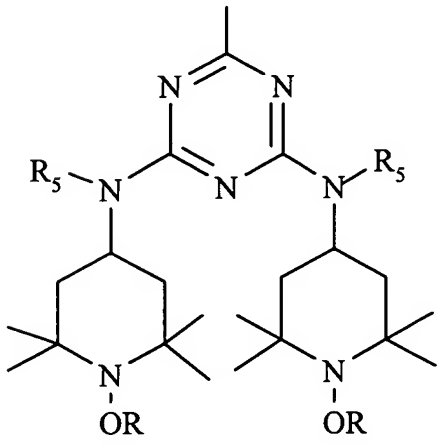
$T\text{-}E_1$ (IIA)

$G\text{-}E_1\text{-}G_1\text{-}E_1\text{-}G_2$ (III)

where in the tetraamine of formula I

R_1 and R_2 are the s-triazine moiety E; and one of R_3 and R_4 is the s-triazine moiety E with the other of R_3 or R_4 being hydrogen,

E is



R is methyl, propyl, cyclohexyl or octyl,

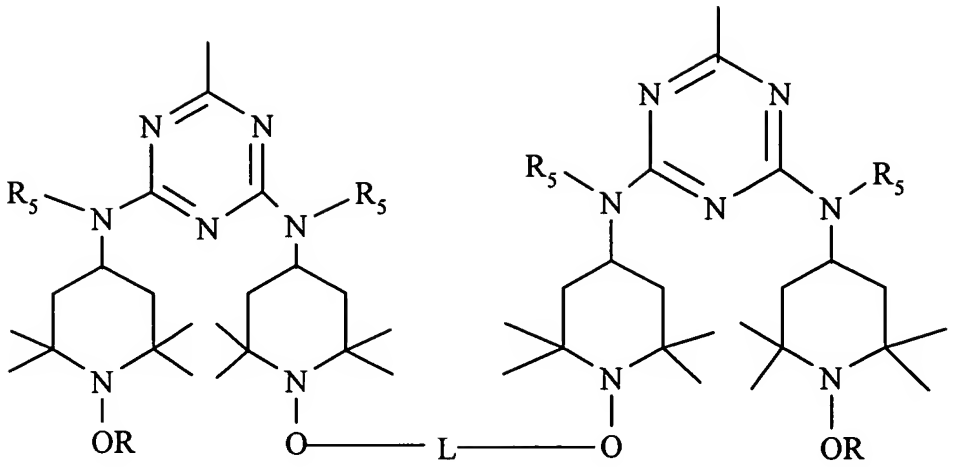
R_5 is alkyl of 1 to 12 carbon atoms,

where in the compound of formula II or IIA when R is propyl, cyclohexyl or octyl,

T and T_1 are each a tetraamine substituted by R_1-R_4 as is defined for formula I, where

(1) one of the s-triazine moieties E in each tetraamine is replaced by the group E_1 which forms a bridge between two tetraamines T and T_1,

E_1 is



or

(2) the group E_1 can have both termini in the same tetraamine T as in formula IIA where two of the E moieties of the tetraamine are replaced by one E_1 group, or

(3) all three s-triazine substituents of tetraamine T can be E_1 such that one E_1 links T and T_1 and a second E_1 has both termini in tetraamine T,

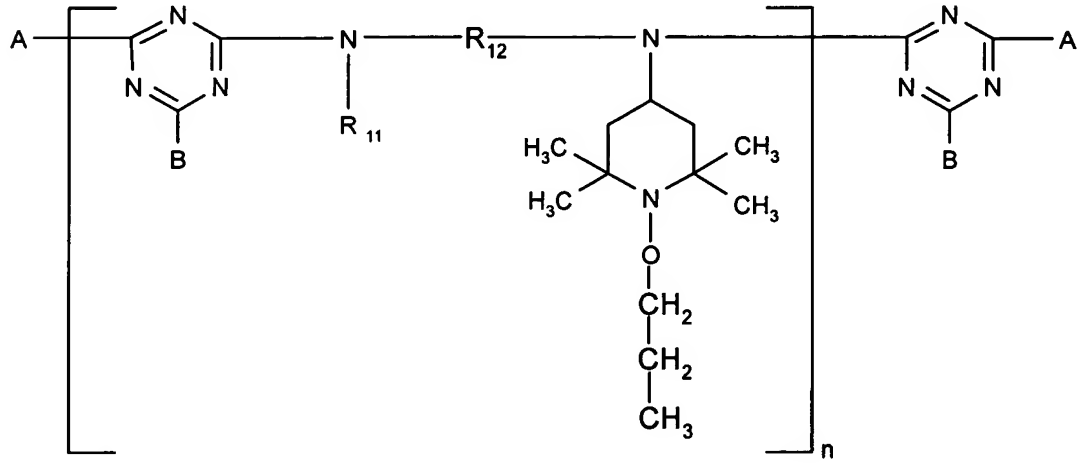
L is propanediyl, cyclohexanediyl or octanediyl;

where in the compound of formula III

G, G_1 and G_2 are each tetraamines substituted by R_1-R_4 as defined for formula I, except that G and G_2 each have one of the s-triazine moieties E replaced by E_1, and G_1 has two of the triazine moieties E replaced by E_1, so that there is a bridge between G and G_1 and a second bridge between G_1 and G_2;

which mixture is prepared by reacting two to four equivalents of 2,4-bis[(1-hydrocarbyl-oxy-2,2,6,6-tetramethylpiperidin-4-yl)butylamino]-6-chloro-s-triazine with one equivalent of N,N'-bis(3-aminopropyl)ethylenediamine;

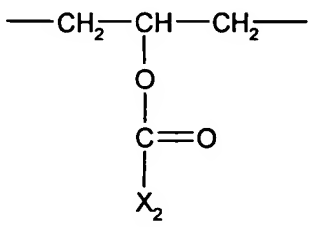
or the hindered amine is a compound of the formula IIIb



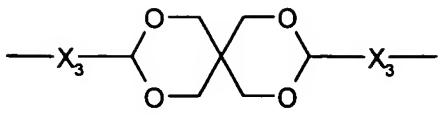
(IIIb)

in which the index n ranges from 1 to 15;

R_{12} is C_2-C_{12}alkylene, C_4-C_{12}alkenylene, C_5-C_7cycloalkylene, C_5-C_7cycloalkylene-di(C_1-C_4alkylene), C_1-C_4alkylenedi(C_5-C_7cycloalkylene), phenylenedi(C_1-C_4alkylene) or C_4-C_{12}alkylene interrupted by 1,4-piperazinediyl, -O- or >N-X_1 with X_1 being C_1-C_{12}acyl or (C_1-C_{12}alkoxy)carbonyl or having one of the definitions of R_{14} given below except hydrogen; or R_{12} is a group of the formula (Ib') or (Ic');



(Ib')



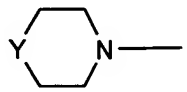
(Ic')

with m being 2 or 3,

X_2 being C_1-C_{18}alkyl, C_5-C_{12}cycloalkyl which is unsubstituted or substituted by 1, 2 or 3 C_1-C_4alkyl; phenyl which is unsubstituted or substituted by 1, 2 or 3 C_1-C_4alkyl or C_1-C_4alkoxy; C_7-C_9phenylalkyl which is unsubstituted or substituted on the phenyl by 1, 2 or 3 C_1-C_4alkyl; and

the radicals X_3 being independently of one another C_2-C_{12}alkylene;

R_{13}, R_{14} and R_{15}, which are identical or different, are hydrogen, C_1-C_{18}alkyl, C_5-C_{12}cycloalkyl which is unsubstituted or substituted by 1, 2 or 3 C_1-C_4alkyl; C_3-C_{18}alkenyl, phenyl which is unsubstituted or substituted by 1, 2 or 3 C_1-C_4alkyl or C_1-C_4alkoxy; C_7-C_9phenylalkyl which is unsubstituted or substituted on the phenyl by 1, 2 or 3 C_1-C_4alkyl; tetrahydrofurfuryl or C_2-C_4alkyl which is substituted in the 2, 3 or 4 position by -OH, C_1-C_8alkoxy, di(C_1-C_4alkyl)amino or a group of the formula (Ie');

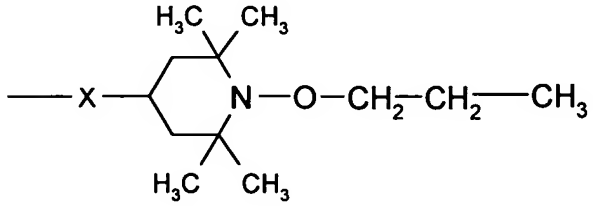


(Ie')

with Y being -O-, $-CH_2-$, $-CH_2CH_2-$ or >N-CH_3,

or -N(R_{14})(R_{15}) is additionally a group of the formula (Ie');

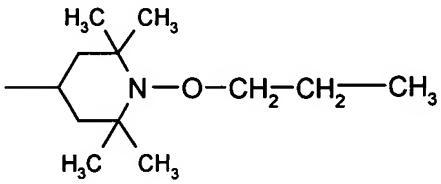
the radicals A are independently of one another -OR_{13}, -N(R_{14})(R_{15}) or a group of the formula (IIId);



(IIId)

X is -O- or >N-R_{16};

R_{16} is hydrogen, C_1-C_{18}alkyl, C_3-C_{18}alkenyl, C_5-C_{12}cycloalkyl which is unsubstituted or substituted by 1, 2 or 3 C_1-C_4alkyl; C_7-C_9phenylalkyl which is unsubstituted or substituted on the phenyl by 1, 2 or 3 C_1-C_4alkyl; tetrahydrofurfuryl, a group of the formula (IIIf),



(IIIf)

or C_2-C_4alkyl which is substituted in the 2, 3 or 4 position by -OH, C_1-C_8alkoxy, di(C_1-C_4alkyl)amino or a group of the formula (Ie');

R_{11} has one of the definitions given for R_{16}; and

the radicals B have independently of one another one of the definitions given for A.

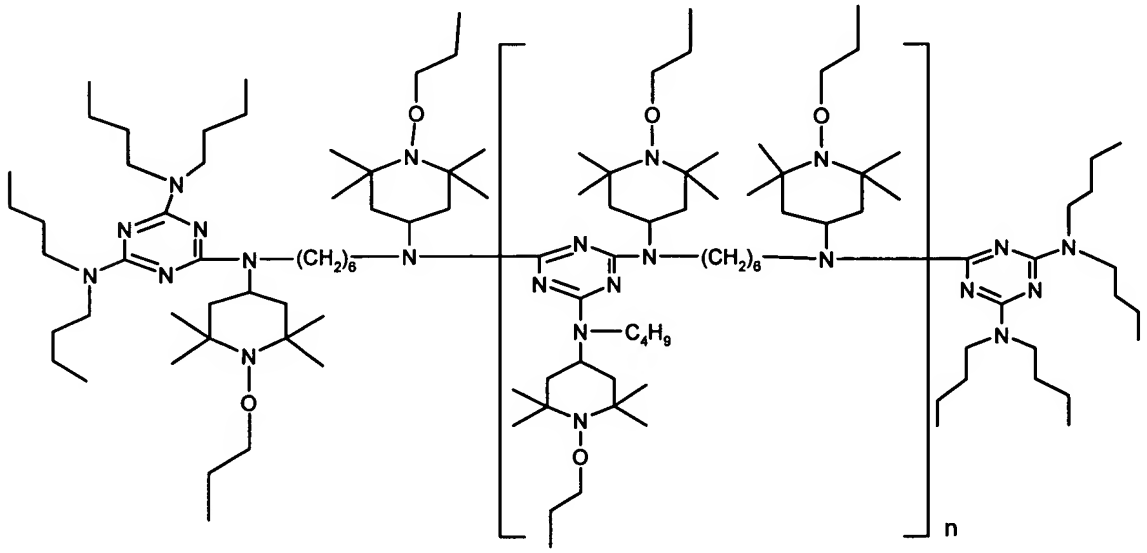
9. A composition according to claim **8** wherein the stabilizers of component (i) are selected from the group consisting of

1-cyclohexyloxy-2,2,6,6-tetramethyl-4-octadecylaminopiperidine;
bis(1-octyloxy-2,2,6,6-tetramethylpiperidin-4-yl) sebacate;
2,4-bis[(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-yl)butylamino]-6-(2-hydroxyethyl-amino-s-triazine;
bis(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-yl) adipate;
2,4-bis[(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-yl)butylamino]-6-chloro-s-triazine;
1-(2-hydroxy-2-methylpropoxy)-4-hydroxy-2,2,6,6-tetramethylpiperidine;
1-(2-hydroxy-2-methylpropoxy)-4-oxo-2,2,6,6-tetramethylpiperidine;
1-(2-hydroxy-2-methylpropoxy)-4-octadecanoyloxy-2,2,6,6-tetramethylpiperidine;
bis(1-(2-hydroxy-2-methylpropoxy)-2,2,6,6-tetramethylpiperidin-4-yl) sebacate;
bis(1-(2-hydroxy-2-methylpropoxy)-2,2,6,6-tetramethylpiperidin-4-yl) adipate;

2,4-bis{N-[1-(2-hydroxy-2-methylpropoxy)-2,2,6,6-tetramethylpiperidin-4-yl]-N-butyl-amino}-6-(2-hydroxyethylamino)-s-triazine;

the reaction product of 2,4-bis[(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-yl)-butylamino]-6-chloro-s-triazine with N,N'-bis(3-aminopropyl)ethylenediamine) and

the compound of formula



in which n is from 1 to 15.

10. A composition according to claim **1** in which the stabilizers of component (i) are present from about 0.05% to about 20% by weight based on the polymer substrate (a).

11. A composition according to claim **1** in which the stabilizers of component (i) are present from about 0.1% to about 10% by weight based on the polymer substrate (a).

12. A composition according to claim **1** in which the conventional flame retardants of component (ii) are selected from the group consisting of

chloroalkyl phosphate esters,

tris(2-chloroethyl)phosphate,

polybrominated diphenyl oxide,
decabromodiphenyl oxide,
tris[3-bromo-2,2-bis(bromomethyl)propyl] phosphate,
tris(2,3-dibromopropyl)phosphate,
tris(2,3-dichloropropyl)phosphate,
chlorendic acid,
tetrachlorophthalic acid,
tetrabromophthalic acid,
bis-(N,N'-hydroxyethyl)tetrachlorphenylene diamine,
poly-β-chloroethyl triphosponate mixture,
bis(2,3-dibromopropyl ether) of tetrabromobisphenol A,
brominated epoxy resin,
ethylene-bis(tetrabromophthalimide),
bis(hexachlorocyclopentadieno)cyclooctane,
chlorinated paraffins,
octabromodiphenyl ether,
hexachlorocyclopentadiene derivatives,
1,2-bis(tribromophenoxy)ethane,
tetrabromo-bisphenol A,
ethylene bis-(dibromo-norbornanedicarboximide),
bis-(hexachlorocyclopentadieno) cyclooctane,
PTFE
tris-(2,3-dibromopropyl)-isocyanurate, and
ethylene-bis-tetrabromophthalimide,
tetraphenyl resorcinol diphosphite,
triphenyl phosphate,
trioctyl phosphate,
tricresyl phosphate,
tetrakis(hydroxymethyl)phosphonium sulfide,
diethyl-N,N-bis(2-hydroxyethyl)-aminomethyl phosphonate,
hydroxyalkyl esters of phosphorus acids,
ammonium polyphosphate,
resorcinol diphosphate oligomer,
phosphazene flame retardants,

ethylenediamine diphosphate,
polyisocyanurate,
esters of isocyanuric acid,
isocyanurates,
hydroxyalkyl isocyanurates,
melamine cyanurate,
melamine borate,
melamine phosphates,
melamine polyphosphates and
melamine pyrophosphates.

13. A composition according to claim **1** in which the conventional flame retardants of component (ii) are present in an amount from about 0.5% to about 45% by weight based on the polymeric substrate (a).

14. A composition according to claim **1** in which the conventional flame retardants of component (ii) are present in an amount from about 0.5% to about 10% by weight based on component (a).

15. A composition according to claim **1** in which the acid scavengers of component (iii) are selected from the group consisting of hydrotalcites and amorphous basic aluminum magnesium carbonates.

16. A composition according to claim **1** in which the acid scavengers of component (iii) are present from about 0.1% to about 1.0% by weight based on component (a).

17. A composition according to claim **1** in which the acid scavengers of component (iii) are present from about 0.2% to about 0.8% by weight based on component (a).

18. A composition according to claim **1** comprising a further component selected from the group consisting of pigments, dyes, plasticizers, phenolic antioxidants, thixotropic agents, levelling assistants, basic costabilizers, nitrone stabilizers, amine oxide stabilizers, benzofuranone stabilizers, UV absorbers, sterically hindered amines, metal passivators, metal oxides, organophosphorus compounds, hydroxylamines, and mixtures thereof.

19. A composition according to claim **18** in which the further component is selected from the group consisting of phenolic antioxidants, calcium stearate, zinc stearate, phosphite and phosphonite stabilizers, benzofuranone stabilizers, UV absorbers of the 2-(2'-hydroxyphenyl)benzotriazole and 2-(2-hydroxyphenyl)-1,3,5-triazine classes, and sterically hindered amines.

20. A process for imparting light stability and flame retardancy to an organic polymer substrate, which process comprises adding to said polymer substrate

(i) at least one sterically hindered amine stabilizer,

(ii) at least one conventional flame retardant selected from the group consisting of the organohalogen, phosphorus containing, isocyanurate and melamine based flame retardants and

(iii) at least one acid scavenger.

21. A flame retardant additive combination comprising

(i) at least one sterically hindered amine stabilizer and

(ii) at least one conventional flame retardant selected from the group consisting of the organohalogen, phosphorus containing, isocyanurate and melamine based flame retardants and

(iii) at least one acid scavenger.

22. A molded polymer article comprising

(i) at least one sterically hindered amine stabilizer,

(ii) at least one conventional flame retardant selected from the group consisting of the organohalogen, phosphorus containing, isocyanurate and melamine based flame retardants and

(iii) at least one acid scavenger.

23. A polymer article according to claim **22** which is a construction article selected from the group consisting of roofing membranes, window profiles, siding and moldings.

24. A polymer article according to claim **22** which is a thermoplastic polyolefin article.

25. A polymer article according to claim **22** which comprises no filler or a filler in an amount less than about 3% by weight based on the weight of the article.

26. A polymer article according to claim **22** containing no antimony compounds or antimony compounds in an amount less than about 1% by weight based on the weight of component (a).

27. A polymer article according to claim **22** in which the sterically hindered amine stabilizers are selected from the group consisting of

1-cyclohexyloxy-2,2,6,6-tetramethyl-4-octadecylaminopiperidine;

bis(1-octyloxy-2,2,6,6-tetramethylpiperidin-4-yl) sebacate;

2,4-bis[(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-yl)butylamino]-6-(2-hydroxyethyl-amino-s-triazine;

bis(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-yl) adipate;

2,4-bis[(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-yl)butylamino]-6-chloro-s-triazine;

1-(2-hydroxy-2-methylpropoxy)-4-hydroxy-2,2,6,6-tetramethylpiperidine;

1-(2-hydroxy-2-methylpropoxy)-4-oxo-2,2,6,6-tetramethylpiperidine;

1-(2-hydroxy-2-methylpropoxy)-4-octadecanoyloxy-2,2,6,6-tetramethylpiperidine;

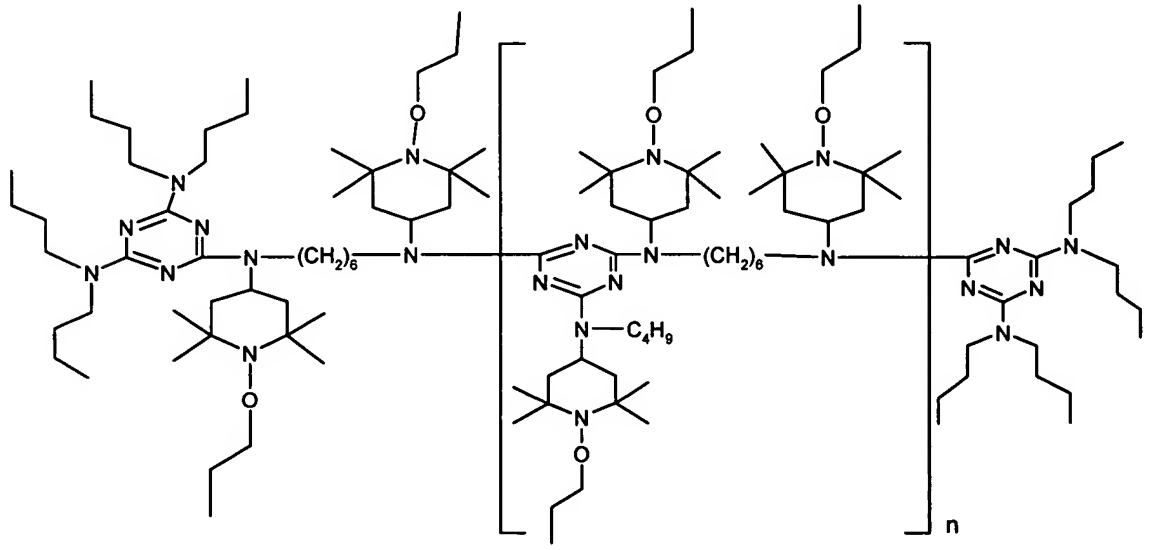
bis(1-(2-hydroxy-2-methylpropoxy)-2,2,6,6-tetramethylpiperidin-4-yl) sebacate;

bis(1-(2-hydroxy-2-methylpropoxy)-2,2,6,6-tetramethylpiperidin-4-yl) adipate;

2,4-bis{N-[1-(2-hydroxy-2-methylpropoxy)-2,2,6,6-tetramethylpiperidin-4-yl]-N-butyl-amino}-6-(2-hydroxyethylamino)-s-triazine;

the reaction product of 2,4-bis[(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-yl)-butylamino]-6-chloro-s-triazine with N,N'-bis(3-aminopropyl)ethylenediamine) and

the compound of formula



in which n is from 1 to 15.

28. A polymer article according to claim **22** in which the conventional flame retardants are selected from the group consisting of

chloroalkyl phosphate esters,
tris(2-chloroethyl)phosphate,
polybrominated diphenyl oxide,
decabromodiphenyl oxide,
tris[3-bromo-2,2-bis(bromomethyl)propyl] phosphate,
tris(2,3-dibromopropyl)phosphate,
tris(2,3-dichloropropyl)phosphate,
chlorendic acid,
tetrachlorophthalic acid,
tetrabromophthalic acid,
bis-(N,N'-hydroxyethyl)tetrachlorphenylene diamine,
poly-β-chloroethyl triphosponate mixture,
bis(2,3-dibromopropyl ether) of tetrabromobisphenol A,
brominated epoxy resin,
ethylene-bis(tetrabromophthalimide),
bis(hexachlorocyclopentadieno)cyclooctane,
chlorinated paraffins,
octabromodiphenyl ether,
hexachlorocyclopentadiene derivatives,
1,2-bis(tribromophenoxy)ethane,
tetrabromo-bisphenol A,
ethylene bis-(dibromo-norbornanedicarboximide),
bis-(hexachlorocyclopentadieno) cyclooctane,
PTFE
tris-(2,3-dibromopropyl)-isocyanurate, and
ethylene-bis-tetrabromophthalimide,
tetraphenyl resorcinol diphosphite,
triphenyl phosphate,
trioctyl phosphate,
tricresyl phosphate,

tetrakis(hydroxymethyl)phosphonium sulfide,
diethyl-N,N-bis(2-hydroxyethyl)-aminomethyl phosphonate,
hydroxyalkyl esters of phosphorus acids,
ammonium polyphosphate,
resorcinol diphosphate oligomer,
phosphazene flame retardants,
ethylenediamine diphosphate,
polyisocyanurate,
esters of isocyanuric acid,
isocyanurates,
hydroxyalkyl isocyanurates,
melamine cyanurate,
melamine borate,
melamine phosphates,
melamine polyphosphates and
melamine pyrophosphates.

29. A polymer article according to claim **22** in which the acid scavenger is selected from the group consisting of hydrotalcites and amorphous basic aluminum magnesium carbonates.